

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on January 2, 2003, and the references cited therewith. Claims 1-3, 5-11, 13-17, 26-28, 30-35 and 39 are now pending in this application.

§102 Rejection of the Claims

Claim 39 was rejected under 35 USC § 102(e) as being anticipated by Canada et al. (U.S. 5,854,994). A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *M.P.E.P.* '2131. To anticipate a claim, a reference must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter. *PPG Industries, Inc. v. Guardian Industries Corp.*, 75 F.3d 1558, 37 USPQ2d 1618 (Fed. Cir. 1996). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

As part of the rejection of claim 39, the Examiner states that "Canada et al. discloses an apparatus comprising the following features: a plurality of machine monitors 4 in Fig. 1 for transmitting information using a low power battery and receiving information; a plurality of repeaters 8 for being located proximate to the machine monitors 4 and for wireless communication with other repeaters or monitors using AC power outlet; command station 6 for controlling the repeaters 8 and machine monitors. See column 7, lines 42-52, and column 10, lines 51-56." *Office Action*, p. 3, ¶3.

Claim 39 is written in means-plus-function format. As such, it covers the structure described in the specification that performs the function, and equivalent structures. In the current application, the "means for being located proximate to and receiving device information from one or more of the means for transmitting information at a lower power and for wireless communication at a higher power level with other such means for being located proximate to and receiving device information" of claim 39 corresponds to the structure described in Applicant's specification at page 7, line 26 through page 8, line 1 as "a device that contains a dual transceiver for communicating over different tiers of a wireless network with other similar router nodes 116,

118, 120 and 122, and with low power sensing, control and actuator type devices comprising first tier nodes shown at 124, 126, 128, 130, 132, 134, and 136.”

This is a precise definition that clearly is not the same as the monitors 4 or repeaters 8 in the vibration monitor and transmission system of Canada et al. The monitors 4 and repeaters 8 of Canada et al. are functionally equivalent such that the monitors 4 and repeaters 8 are on a single tier. Applicant respectfully directs the Examiner's to Canada et al. at col. 10, lines 43-50:

“The repeater's transceiver 808 and computer 812 are of the same type as, or are functionally equivalent to, the corresponding components of the machine monitor 4. In the preferred embodiment, the operation of the repeater 8 is "transparent" to the other components of the system, that is, the other components function in the same manner as they would if the repeater 8 were unnecessary and not in the system.”

None of the devices disclosed in Canada appear to include a transceiver that transmits and receives at low power with some devices and at higher power with other devices.

Therefore, Applicant can not find in Canada or the Examiner's rejection “a plurality of means for transmitting information at a low power and receiving information” in combination with “a plurality of means for being located proximate to and receiving device information from one or more of the means for transmitting information at a lower power and for wireless communication at a higher power level with other such means for being located proximate to and receiving device information” as recited in claim 39. Since Canada et al. does not show each and every element, the rejection should be withdrawn.

§103 Rejections of the Claims

Claims 1, 3 and 10

Claims 1, 3, and 10 were rejected under 35 USC § 103(a) as being unpatentable over Canada et al. (U.S.5,854,995) in view of Carvey (U.S.5,669,357). A *prima facie* case of obviousness has not been established for at least the following reasons: The combination of Canada et al. and Carvey do not teach or suggest each and every element of the claimed invention, and there is no suggestion to combine them.

I. Canada et al. and Carvey do not teach every element of claims 1, 3 and 10

In order to establish a prima facie case of obviousness, the references must teach or suggest all the claim elements. See M.P.E.P. § 2142 and *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991). The present invention uses low power devices in combination with routers that operate with the low power devices and other high power routers to allow the low power devices to be located further from a controller.

As mentioned above, Canada is directed to a vibration monitor and transmission system that sends and receives signals from one or monitors 4 through one or more functionally equivalent repeaters 8 along a single tier. Carvey is directed to a personal digital assistant (PDA) that communicates with a number of close proximity personal electronic accessories (PEAs) (see Carvey abstract; col. 1, lines 4-8 and 54; and col. 2 lines 17-30). Carvey is similar to Canada in it does not teach or suggest a router node that operates at a low power level with low power devices and at a high power level with other routers.

Therefore, Applicant can not find Canada and/or Carvey “a plurality of devices, each device coupled to a low power transceiver that transmits over a short range” in combination with “a plurality of router nodes, each router node having a transceiver capable of receiving device information from one or more proximate wireless devices and capable of wireless communication at a higher power level with other router nodes” as recited in claim 1 and corresponding dependent claim 3.

In addition, the combination of Canada and Carvey does not disclose “a plurality of devices, each device having a low power battery operated transceiver that communicates information over a short range” in combination with “a router having a transceiver that receives communications from at least one selected device and transmits further communications via a higher power transceiver to other routers” as recited in claim 10. Since the cited combination does not teach or suggest each and every element, the rejection should be withdrawn.

II. There is no motivation or suggestion to combine Canada et al. and Carvey

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991); MPEP § 2143. The Examiner must

avoid hindsight. *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990).

Canada et al. describe a vibration monitor and transmission system (see Abstract) that sends and receives signals from one or monitors 4 through one or more repeaters 8 that are functionally equivalent to the monitors 4. Carvey requires in the Summary that: "The data network of the present invention utilizes the fact that the server microcomputer unit and the several peripheral units which are to be linked are all in close physical proximity, e.g., under two meters separation, to establish, with very high accuracy, a common time base or synchronization." In other words, Carvey expressly teaches away from any sort of combination of repeaters 8 that are similar to the ones used in Canada et al. because the devices in Carvey must be in close physical proximity. Thus, there is no suggestion to combine Carvey et al. and Canada et al.

Applicant also respectfully submits that the Examiner has only provided a mere conclusory statement regarding a motivation to combine Canada and Carvey. The Examiner states at page 4, ¶5 of the Office Action, "[i]t would have been obvious to one of the ordinary skill in the art at the time of the invention to use the features, as taught by Carvey, in the system of Canada et al., in order to provide various applications, see column 2, lines 2-13."

The Office Action must provide specific, objective evidence of record for a finding of a suggestion or motivation to combine reference teachings and must explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). Mere conclusory statements are unsatisfactory.

"With respect to Lee's application, neither the examiner nor the Board adequately supported the selection and combination of the Nortrup and Thunderchopper references to render obvious that which Lee described. The examiner's conclusory statements that 'the demonstration mode is just a programmable feature which can be used in many different devices for providing automatic introduction by adding the proper programming software' and that 'another motivation would be that the automatic demonstration mode is user friendly and it functions as tutorial' do not adequately address the issue of motivation to combine. This factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill in the art would have been lead to this combination of references, simply to use '[use] that which the inventor taught against its teacher.' *W.L. Gore V. Garlock, Inc.*, 721 F. 2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)." *Lee*, at 1343, 1344.

Applicant can not see where column 2, lines 2-13 of Canada et al. provide a motivation to use the data network of Carvey. The Examiner's statement is analogous to the conclusory statements made by the Examiner and Board in the *In re Lee* case.

A factor cutting against a finding of motivation to combine or modify the prior art is when the prior art teaches away from the claimed combination. A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path the applicant took. *In re Gurley*, 27 F.3d 551, 31 USPQ 2d 1130, 1131 (Fed. Cir. 1994); *United States v. Adams*, 383 U.S. 39, 52, 148 USPQ 479, 484 (1966); *In re Sponnoble*, 405 F.2d 578, 587, 160 USPQ 237, 244 (C.C.P.A. 1969); *In re Caldwell*, 319 F.2d 254, 256, 138 USPQ 243, 245 (C.C.P.A. 1963).

Applicant respectfully submits that Canada and Carvey teach away from one another because Applicant can not see how the systems disclosed Canada and Carvey could be physically and/or operationally combined to produce the systems of claims 1 and 10. Since there is no motivation or suggestion to combine the cited references, the rejection should be withdrawn.

Claims 2, 5-9, 11 and 13-17

Claims 2, 5-9, 11, and 13-17 were rejected under 35 USC § 103(a) as being unpatentable over Canada et al. (U.S.5,854,995) in view of Carvey (U.S.5,669,357) as applied to claims 1 and 10 above, and further in view of Velasco (US 5,032,845). A *prima facie* case of obviousness has not been established for at least the following reasons: The combination of Canada, Carvey and Velasco does not teach or suggest each and every element of the claimed invention, and there is no suggestion to combine them.

I. Canada, Carvey and Velasco do not teach every element of claims 2, 5-9, 11 and 13-17

As mentioned above, (i) Canada et al. disclose a vibration monitor and transmission system that includes functionally equivalent monitors 4 and repeaters 8 which transceive with one another along a single tier; and (ii) Carvey discloses a PDA that communicates with a number of close proximity personal electronic accessories.

Velasco discloses a vehicle operating system that sends VHF and UHF signals between

cars 11-13, local masters 21, repeaters 22 and a central master 24. Applicant can not find in Velasco that any of these devices transceive at low power with low power devices and at higher power with other routers. Therefore, even if Canada, Carvey and Velasco are combined, the combination does not teach or suggest:

- i. "a plurality of devices, each device coupled to a low power transceiver that transmits over a short range, and receives information, wherein at least one of the devices is selected from the group consisting of sensors, actuators, and controllers" in combination with "a plurality of router nodes, each router node having a transceiver capable of receiving device information from one or more proximate wireless devices and capable of wireless communication at a higher power level with other router nodes" as recited in claim 1 and corresponding dependent claims 2 and 5-9; and
- ii. "a plurality of devices, each device having a low power battery operated transceiver that communicates information over a short range, provided by the device, wherein at least one of the devices is selected from the group consisting of sensors, actuators, and controllers" in combination with "a router having a transceiver that receives communications from at least one selected device and transmits further communications via a higher power transceiver to other routers" as recited in claim 10 and corresponding dependent claims 11 and 13-17.

Since the cited combination does not teach or suggest each and every element, the rejection should be withdrawn.

II. There is no motivation or suggestion to combine Canada, Carvey and Velasco

The Examiner has only provided a mere conclusory statement regarding a motivation to combine Canada, Carvey and Velasco. The Examiner states, "[i]t would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Canada et al. and Carvey, by using the features, as taught by Velasco, in order to provide an efficient data transmission system." *Office Action*, p. 4, ¶6. The Examiner's statement is again analogous to the conclusory statements made by the Examiner and Board in *In re Lee*.

The Examiner's statement also fails to explain how Velasco could be combined with Canada and Carvey. Applicant can not see how the PDA disclosed in Carvey (which needs to be in close proximity to a number of personal electronic accessories to operate) could be incorporated into a vehicle location system that sends VHF and UHF signals over several miles between stations as disclosed in Velasco. If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or

motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); MPEP 2143.01.

Applicant also respectfully submits that Canada, Carvey and Velasco teach away from one another because even if Velasco and Carvey could somehow be combined, applicant can not see how the resulting device (which would deliver UHF and VHF signals over several miles as disclosed in Velasco) could be incorporated into the vibration monitoring and transmission system of Canada. Since there is no motivation or suggestion to combine the cited references, the rejection should be withdrawn.

Claims 26-28

Claims 26-28 were rejected under 35 USC § 103(a) as being unpatentable over Canada et al. (U.S.5,854,995) in view of Velasco (US 5,032,845) and Parken (US 5,010,583). A *prima facie* case of obviousness has not been established for at least the following reasons: The combination of Canada, Velasco and Parken do not teach or suggest each and every element of the claimed invention, and there is no suggestion to combine them.

I. Canada, Velasco and Parken do not teach every element of claims 26-28

The Examiner states at pages 4-5 of the Office Action that "Canada et al. discloses . . . a repeater 8a in Fig. 1 (claimed second router node) for receiving low power transmission from a plurality of machine monitors 4, and receiving and transmitting high power transmission to and from another repeater or command station 6." Applicant respectfully traverses this assertion because Canada et al. disclose repeaters 8 that are functionally equivalent to monitors 4 such that the repeaters 8 and monitors 4 transmit and receive on a single tier.

Velasco discloses a vehicle location system that sends VHF and UHF signals between cars 11-13, local masters 21, repeaters 22 and a central master 24. Parken is directed to a portable or mobile communication unit 130 that includes a wide area coverage multiple repeater system. Parken is similar to Canada and Velasco in that Parken does not teach or suggest a router that sends and receives high power transmissions with other routers and low power transmissions with other devices. The only disclosure in Parken related to power levels is at column 2, line 67 through column 3, line 1 which describes monitoring the received signal

strength in a cellular network.

Therefore, even if Canada, Velasco and Parken are combined, applicant can not find “a second router node having a first receiver for receiving low power transmissions of physical condition related information from a plurality of devices located proximate the second router node, a second receiver for receiving high bandwidth transmissions from other routers in the system, and a first transmitter coupled to the first and second receivers that transmits information from the plurality of devices at a relatively high power to the first router node” as recited in claim 26 and corresponding dependent claims 27-28. Since the cited combination does not teach or suggest each and every element, the rejection should be withdrawn.

II. There is no motivation or suggestion to combine Canada, Velasco and Parken

The Examiner has only provided a mere conclusory statement regarding a motivation to combine Canada, Velasco and Parken. The Examiner states “[i]t would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Canada by using the features, as taught by Velasco and Parken, in order to reduce the possibilities of transmission collisions. See column 1, lines 20-22.” *Office Action*, p. 5, ¶7.

Applicant can not see where the description in Canada of a vibration monitor and transmission system provides any motivation to use the mobile communication unit of Parken. In addition, applicant can not find any disclosure in Parken (including column 1, lines 20-22) that would lead one of ordinary skill in the art to place such a repeater system in the vibration monitor and transmission system of Canada. The Examiner’s statement is again analogous to the conclusory statements made by the Examiner and Board in the *In re Lee* case.

Applicant also respectfully submits that Canada, Velasco and Parken teach away from one another because Applicant can not see how the Parken repeater system could be physically and/or operationally placed in the Canada transmission system, especially to produce a system that includes a router node which transceives at high power with router nodes and at low power with other devices as recited in claim 26. Since there is no motivation or suggestion to combine the cited references, the rejection should be withdrawn.

Claims 30-35

Claims 30-35 were rejected under 35 USC § 103(a) as being unpatentable over Canada et al. (U.S.5,854,995) in view of Parken (US 5,010,583), Carvey (US 6,128,290), and Velasco (US 5,032,845). A *prima facie* case of obviousness has not been established for at least the following reasons: The combination of Canada, Parken, Carvey and Velasco do not teach or suggest each and every element of the claimed invention, and there is no suggestion to combine them.

I. Canada, Parken, Carvey and Velasco do not teach every element of claims 30-35

Applicant initially notes with respect that the Examiner is combining four references to maintain the rejection. As discussed above, (i) Canada is directed to a vibration monitor and transmission system that sends and receives signals from one or monitors 4 through one or more functionally equivalent repeaters 8 along a single tier; (ii) Parken is directed to a portable or mobile communication unit 130 that includes a wide area coverage multiple repeater system; (iii) Carvey is directed to a PDA that communicates with a number of close proximity personal electronic accessories; and (iv) Velasco is directed to vehicle locating system that sends VHF and UHF signals between cars, local masters, repeaters and a central master. Parken, Carvey and Velasco are similar to Canada in that they do not teach or suggest a router node that transceives low power transmissions with a plurality of devices and high bandwidth transmissions with other routers.

Therefore, applicant can not find in the cited combination a router node that includes “a first transceiver that receives low power transmissions of information from a plurality of devices located proximate the router node” in combination with “a second transceiver that receives high bandwidth transmissions from other routers in the system, wherein the second transceiver further transmits information from the plurality of devices at a higher power level than the received low power transmissions” as recited in claim 30 and corresponding dependent claims 31-35. Since the cited combination does not teach or suggest each and every element, the rejection should be withdrawn.

II. There is no motivation or suggestion to combine Canada, Parken, Carvey and Velasco

The Examiner acknowledges that Canada does not each or suggest all of the elements in

claims 30-35 by stating "Canada et al. disclose only one transceiver 808 in Fig. 7 for the repeater, rather than the claimed two transceivers. Moreover, Canada et al. does not disclose the claimed features of: at least one of the devices is selected from the group consisting of sensors, actuators, and controllers, and high bandwidth transmission." *Office Action*, p. 5, ¶8.

The Examiner attempts to overcome the deficiencies of Canada by combining Canada with Parken, Carvey and Velasco. According to the Office Action "[i]t would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Canada et al., by using the features, as taught by Parken, Carvey and Velasco, in order to provide an efficient data transmission system." *Office Action*, p. 6, ¶8.

Applicant traverses the assertion and respectfully submits that each of cited references teach away from one another to some degree because Applicant can not see how the vibration monitor and transmission system of Canada would be modified to include the (i) mobile communication unit of Parken; (ii) PDA and close proximity personal electronic accessories of Carvey; **AND** (iii) vehicle location system of Velasco. In addition, Applicant respectfully submits that the Examiner's statement regarding a motivation to combine Canada with Parken, Carvey and Velasco is conclusory because the Examiner's statement is again analogous to the conclusory statements made by the Examiner and Board in the *In re Lee* case.

Reservation of Right to Swear Behind References

Applicant reserves the right to swear behind any references which are cited in a rejection under 35 U.S.C. §§102(a), 102(e), 103/102(a), and 103/102(e). Statements distinguishing the claimed subject matter over the cited references are not to be interpreted as admissions that the references are prior art.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612-373-6972) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

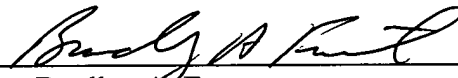
Respectfully submitted,

JEFF KRIZ

By his Representatives,

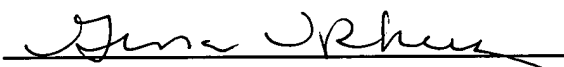
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 28 day of March, 2003.

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